

MAR 0 4 2002

TECH CENTER 1600/2900



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/847,208B

DATE: 02/19/2002 TIME: 12:13:27

ENTERED

Input Set : A:\UC067.002A-SEQ-ID.txt

Output Set: N:\CRF3\02192002\I847208B.raw

```
4 <110> APPLICANT: Saxon, Andrew
       Zhang, Ke
       Zhu, Daocheng
```

8 <120> TITLE OF INVENTION: FUSION MOLECULES AND TREATMENT OF

IGE-MEDIATED ALLERGIC DISEASES 12 <130> FILE REFERENCE: UC067.002A

14 <140> CURRENT APPLICATION NUMBER: US 09/847,208B

15 <141> CURRENT FILING DATE: 2001-05-01

17 <160> NUMBER OF SEQ ID NOS: 177

19 <170> SOFTWARE: FastSEQ for Windows Version 4.0

21 <210> SEQ ID NO: 1 22 <211> LENGTH: 696 23 <212> TYPE: DNA

6

24 <213> ORGANISM: Homo sapiens

26 <400> SEQUENCE: 1

27 gageceaaat ettgtgacaa aacteacaca tgeecacegt geecageace tgaacteetg 60 28 gggggaccgt cagtetteet etteceecca aaacccaagg acacceteat gateteeegg 120 29 acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc 180 30 aactggtacg tggacggcgt ggaggtgcat aatgttaaga caaagccgcg ggaggagcag 240 31 tacaacagca cgtaccgtgt ggtcagcgtc ctcaccgtcc tgcaccagaa ctggatgaat 300 32 ggaaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 360 33 atotocaaag ccaaagtgca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg 420 34 gatgagetga ecaagaacca ggteageetg acetgeetgg teaaaggett etateeeage 480 35 gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct 540 36 cccgtgctgg actccgtcgg ctccttcttc ctctacagca agctcaccgt ggacaagagc 600 37 aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 660 38 taccagcaga ggagcctctc cctgtctccg ggtaaa

40 <210> SEQ ID NO: 2 41 <211> LENGTH: 330

42 <212> TYPE: PRT

43 <213> ORGANISM: Homo sapiens

45 <400> SEQUENCE: 2

46 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys 47 1 10

48 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr

50 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser

35 40 52 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

55

60 54 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr

70 75

56 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys

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					0.5					~ ~					٥.	
57					85	_	_	_		90					95	
	Lys	Val	GLu	Pro	Lys	Ser	Cys	Asp	_	Thr	His	Thr	Cys		Pro	Cys
59		_ •	_	100	_	_			105	_			_	110		_
	Pro	Ala		Glu	Leu	Leu	GLY		Pro	Ser	Val	Phe		Phe	Pro	Pro
61			115					120					125	_		
	Lys		Lys	Asp	Thr	Leu		Ile	Ser	Arg	Thr		Glu	Val	Thr	Cys
63		130	_		_	_	135			_		140	_			
		Val	Val	Asp	Val		His	Glu	Asp	Pro		Val	Lys	Phe	Asn	_
-	145					150					155					160
	Tyr	Val	Asp	Gly		GLu	Va⊥	His	Asn		Lys	Thr	Lys	Pro	-	Glu
67		_			165					170				_	175	
	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg		Val	Ser	Val	Leu		Val	Leu
69				180					185					190		
	His	Gln		\mathtt{Trp}	Met	Asn	Gly		Glu	Tyr	Lys	Cys		Val	Ser	Asn
71			195					200					205			
	Lys		Leu	Pro	Ala	Pro		Glu	Lys	Thr	Ile		Lys	Ala	Lys	Val
73		210					215		_			220				
		Pro	Arg	Glu	Pro		Val	Tyr	Thr	Leu		Pro	Ser	Arg	Asp	
	225					230					235	0.2				240
	Leu	Thr	Lys	Asn		Val	Ser	Leu	Thr		Leu	Val	Lys	Gly		Tyr
77				_	245					250		_			255	
	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp		Ser	Asn	Gly	Gln		Glu	Asn
79				260				_	265			0.2	_	270	_	
	Asn	Tyr	_	Thr	Thr	Pro	Pro		Leu	Asp	Ser	Val	_	Ser	Phe	Phe
81	_	_	275		_		-	280			_ 0	_	285			_
	Leu	_	Ser	Lys	Leu	Thr		Asp	Lys	Ser	Arg		GIn	GIn	GLY	Asn
83		290	_	_	_	1	295	•			_	300	_	•	_	~ 1
		Phe	Ser	Cys	ser		мет	HIS	GIU	АТа		HIS	Asn	His	Tyr	
	305		_	_		310	a		~ 1	_	315					320
	GIn	Arg	ser	Leu		Leu	ser	Pro	GTA	_						
87	-016	\. ar			325					330						
				NO:												
				1: 23	2											
	<212				T7							·				
				ISM:		Sap	rens	•								
				ICE:		7	T 0	mh	TT	mh	C	D===	Dma	O	Dma	71-
		Pro	гуѕ	Ser	Cys 5	ASP	гуѕ	THE	HIS		Cys	Pro	Pro	Cys		Ата
97	1	C1 .,	T 011	T 011	-	C1	Dwo	Com	17.5.1	10 Dho	т он	Dho	Dwo	Dwo	15	Dwo
	PIO	GIU	ьeu	Leu	СТУ	СТЪ	PIO	ser		Pne	Leu	PHe	PIO	30	гуѕ	PTO
99	\ T		. mb.	20	Wat	т1.		. 7	25 - mb-	n D.m.s	. 01	17.01	mba			17 n 1
	_	S ASL	35	. Leu	. Met	. тте	s ser	40	J 1111	PIC) GIU	ı val	. 1111 45	Суѕ	у уат	. vaı
101		7.00		Cor	. 1116	C1,,	7.00		. C1v	. 17-1	T ***	Dha		. III 2020	. Птт	. 17-1
			, vai	L Ser	nis	GIU	55	PIC) GIU	ı val	г гуз		: ASI	LITE	, 171	Val
103		50	, 1751	(1.5	1751	ui ~		ר פינו	T ***	. መሌ-	^ T ***	60 Bro	\ N ~~~	. G1.	(21.0	Gln
	65 65	, GT	v val	l Glu	. val	. HIS	ASI	ı val	г пус	. 1111	т цув 75	PIC	, AIG	GIU	. GIU	. GIN
		. 70-		Thr	. пт~		. W=1	V=1	60.	- 17=1		ጥ ኮ~	. W=1	T O	ui-	
107		. ASI	ı sei	. 1111	85	Arg	val	. val	. sei	. va.	. шеи	. 1111	. val	ьeu	95	GIII
		. m~~	. Mo+	. Asn		. T 17.0	C1.	- Птт-	~ T ***		. T	1751	C^~	. 7 ~~		λl ¬
TOC	ASI	1 TTF	, met	- Wall	. сту	пλг	GIU	гтЛт	. ⊔у≿	о суч	ь пар	v al	. ser	ASI	гпЛэ	ита

Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\1847208B.raw

```
100
109
                                    105
110 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Val Gln Pro
            115
                                120
112 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
                            135
113
        130
                                                 140
114 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                        150
                                             155
116 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
117
                    165
                                        170
118 Lys Thr Thr Pro Pro Val Leu Asp Ser Val Gly Ser Phe Phe Leu Tyr
119
                180
                                    185
120 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            195
                                200
122 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Gln Gln Arg
        210
123
                            215
                                                 220
124 Ser Leu Ser Leu Ser Pro Gly Lys
125 225
                        230
128 <210> SEQ ID NO: 4
129 <211> LENGTH: 1445
130 <212> TYPE: DNA
131 <213> ORGANISM: Homo sapiens
133 <400> SEQUENCE: 4
134 tocacacaga goocatoogt ottoccottg accogotgot goaaaaacat tocotocaat 60
135 gccacctccg tgactctggg ctgcctggcc acgggctact tcccggagcc ggtgatggtg 120
136 acctgggaca caggeteect caacgggaca actatgacet taccagecae caeceteaeg 180
137 ctctctggtc actatgccac catcagcttg ctgaccgtct cgggtgcgtg ggccaagcag 240
138 atgttcacct gccgtgtggc acacactcca tcgtccacag actgggtcga caacaaaacc 300
139 ttcaqcqtct qctccaqqqa cttcaccccq cccaccqtqa aqatcttaca qtcqtcctqc 360
140 gacqqqqqq qqcacttccc cccqaccatc cagctcctqt qcctcqtctc tqqqtacacc 420
141 ccaqqqacta tcaacatcac ctqqctqqaq qacqqqcaqq tcatqqacqt qqacttqtcc 480
142 accgcctcta ccacgcagga gggtgagctg gcctccacac aaagcgagct caccctcagc 540
143 cagaagcact ggctgtcaga ccgcacctac acctgccagg tcacctatca aggtcacacc 600
144 tttgaggaca gcaccaagaa gtgtgcagat tccaacccga gaggggtgag cgcctaccta 660
145 ageoggeeca geocgttega cetgtteate egeaagtege ceaegateae etgtetggtg 720
146 gtggacctgg cacccagcaa ggggaccgtg aacctgacct ggtcccgggc cagtgggaag 780
147 cctgtgaacc actccaccag aaaggaggag aagcagcgca atggcacgtt aaccgtcacg 840
148 tecaceetge eggtgggeae eegagaetgg ategaggggg agacetaeea gtgeagggtg 900
149 acceaecce acctgeecag ggeecteatg eggteeacga ecaagaceag eggeeegegt 960
150 gctgccccgg aagtctatgc gtttgcgacg ccggagtggc cggggagccg ggacaagcgc 1020
151 accetegeet geetgateea gaactteatg cetgaggaea teteggtgea gtggetgeae 1080
152 aacgaggtgc agctcccgga cgcccggcac agcacgacgc agccccgcaa gaccaagggc 1140
153 teeggettet tegtetteag eegeetggag gtgaceaggg eegaatggga geagaaagat 1200
154 gagttcatct gccgtgcagt ccatgaggca gcgagcccct cacagaccgt ccagcgagcg 1260
155 gtgtctgtaa atcccggtaa atgacgtact cctgcctccc tccctcccag ggctccatcc 1320
156 agetgtgcag tggggaggac tggccagacc ttctgtccac tgttgcaatg accccaggaa 1380
157 gctaccccca ataaactgtg cctgctcaga gccccagtac acccattctt gggaqcgggc 1440
158 agggc.
                                                                       1445
160 <210> SEO ID NO: 5
161 <211> LENGTH: 427
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Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\1847208B.raw

162 <212> TYPE: PRT																
	63 <213> ORGANISM:					Homo sapiens										
	<40															
166	Ser	Thr	Gln	Ser	Pro	Ser	Val	Phe	Pro	Leu	Thr	Arg	Cys	Cys	Lys	Asn
167					5					10		_	_	_	15	
168	Ile	Pro	Ser	Asn	Ala	Thr	Ser	Val	Thr	Leu	Gly	Cys	Leu	Ala	Thr	Gly
169				20					25		_	_		30		_
170	Tyr	Phe	Pro	Glu	Pro	Val	Met	Val	Thr	Trp	Asp	Thr	Gly	Ser	Leu	Asn
171	_		35					40		_	_		45			
172	Gly	Thr	Thr	Met	Thr	Leu	Pro	Ala	Thr	Thr	Leu	Thr	Leu	Ser	Gly	His
173		50					55					60				
174	Tyr	Ala	Thr	Ile	Ser	Leu	Leu	Thr	Val	Ser	Gly	Ala	Trp	Ala	Lys	Gln
175	65					70					75					80
176	Met	Phe	Thr	Cys	Arg	Val	Ala	His	Thr	Pro	Ser	Ser	Thr	Asp	${\tt Trp}$	Val
177					85					90					95	
178	Asp	Asn	Lys	Thr	Phe	Ser	Val	Cys	Ser	Arg	Asp	Phe	Thr	Pro	Pro	Thr
179				100					105					110		
	Val	Lys		Leu	Gln	Ser	Ser	_	Asp	Gly	Gly	Gly		Phe	Pro	Pro
181			115					120					125			
	Thr		Gln	Leu	Leu	Cys		Val	Ser	Gly	Tyr		Pro	Gly	Thr	Ile
183		130					135	_	_			140				
	Asn	Ile	Thr	Trp	Leu		Asp	Gly	Gln	Val		_	Val	Asp	Leu	
-	145		_			150				_					_	160
	Thr	Ala	Ser	Thr		GIn	GIu	GLŸ	GLu		Ala	Ser	Thr	GIn		GLu
187	.	m1	.	a	165		***			170	•	•	ml		175	a
	Leu	Inr	ьeu		GIN	ьуs	HIS	Trp		ser	Asp	Arg		_	Tnr	Cys
189	C1 n	37-1	mb ~	180	C1 n	C1	111.0	mbs	185	C1	1 a n	Com		190	T	Crra
191	Gln	vaı	195	TYL	GIII	GTA	птъ	200	Pile	Gru	ASP	ser	205	гуу	гуѕ	Cys
	Ala	Δsn		Δen	Pro	Δra	Glv		Ser	Δla	Тυг	Len		Δτα	Pro	Ser
193	niu	210	DCI	non	110	1119	215	Vul	JCI	niu	- y -	220	DCI	my	110	DCI
	Pro		Asp	Leu	Phe	Ile		Lvs	Ser	Pro	Thr		Thr	Cvs	Leu	Val
	225		<u>F</u>			230	5	-1-			235			-1-		240
196	Val	Asp	Leu	Ala	Pro	Ser	Lys	Gly	Thr	Val	Asn	Leu	Thr	Trp	Ser	Arg
197		_			245		_	_		250				_	255	_
198	Ala	Ser	Gly	Lys	Pro	Val	Asn	His	Ser	Thr	Arg	Lys	Glu	Glu	Lys	Gln
199				2,60					265					270		
200	Arg	Asn	Gly	Thr	Leu	Thr	Val	Thr	Ser	Thr	Leu	Pro	Val	Gly	Thr	Arg
201			275					280					285			
202	Asp	Trp	Ile	Glu	Gly	Glu	Thr	Tyr	Gln	Cys	Arg	Val	Thr	His	${\tt Pro}$	His
203		290					295					300				
	Leu	Pro	Arg	Ala	Leu	Met	Arg	Ser	Thr	Thr	Lys	Thr	Ser	Gly	Pro	Arg
	305					310					315					320
	Ala	Ala	Pro	Glu		\mathtt{Tyr}	Ala	Phe	Ala		Pro	Glu	${\tt Trp}$	Pro	Gly	Ser
207					325					330					335	
	Arg	Asp	Lys		Thr	Leu	Ala	Cys		Ile	Gln	Asn	Phe		Pro	Glu
209			_	340		_	_	•	345				_	350	_	_ •
	Asp	Ile		Val	GIn	Trp	Leu		Asn	G1u	Val	Gln		Pro	Asp	Ala
211			355					360					365			

Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\I847208B.raw

```
212 Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly Ser Gly Phe Phe
                             375
                                                 380
214 Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp Glu Gln Lys Asp
215 385
                        390
                                             395
216 Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser Pro Ser Gln Thr
                    405
                                         410
218 Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
                420
219
222 <210> SEQ ID NO: 6
223 <211> LENGTH: 320
224 <212> TYPE: PRT
225 <213> ORGANISM: Homo sapiens
227 <400> SEQUENCE: 6
228 Phe Thr Pro Pro Thr Val Lys Ile Leu Gln Ser Ser Cys Asp Gly Gly
230 Gly His Phe Pro Pro Thr Ile Gln Leu Leu Cys Leu Val Ser Gly Tyr
232 Thr Pro Gly Thr Ile Asn Ile Thr Trp Leu Glu Asp Gly Gln Val Met
            35
                                 40
234 Asp Val Asp Leu Ser Thr Ala Ser Thr Thr Gln Glu Gly Glu Leu Ala
236 Ser Thr Gln Ser Glu Leu Thr Leu Ser Gln Lys His Trp Leu Ser Asp
238 Arg Thr Tyr Thr Cys Gln Val Thr Tyr Gln Gly His Thr Phe Glu Asp
240 Ser Thr Lys Lys Cys Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr
                100
242 Leu Ser Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr
                                120
                                                     125
            115
244 Ile Thr Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn
        130
                            135
                                                 140
246 Leu Thr Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg
                        150
                                             155
248 Lys Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu
                                         170
250 Pro Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg
                                     185
252 Val Thr His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys
253
                                 200
254 Thr Ser Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro
256 Glu Trp Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln
                        230
                                             235
258 Asn Phe Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val
259
                    245
                                         250
260 Gln Leu Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys
                260
                                     265
262 Gly Ser Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu
263
                                 280
                                                     285
```

Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/847,208B

DATE: 02/19/2002 TIME: 12:13:29

Input Set : A:\UC067.002A-SEQ-ID.txt
Output Set: N:\CRF3\02192002\I847208B.raw

L:3091 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:3134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:3471 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93
L:3473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93
L:3488 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94
L:4523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126
L:6231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176
L:6233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176
L:6248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177
L:6250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177